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EXAMINER
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EASHOO, MARK

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 05/25/2006

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Application Number: 10/602,197  
Filing Date: June 24, 2003  
Appellant(s): HANYU ET AL.

**MAILED**  
MAY 25 2006  
GROUP 1700

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Tenley R. Krueger  
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 09-MAR-2006 appealing from the Office action mailed 16-NOV-2005.

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**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

Claims 1-20 were originally presented and have been canceled.

Claims 21-26 were presented in a preliminary amendment and were amended on 02-NOV-2005.

This appeal involves claims 21-26.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

Whether claims 21-26 are unpatentable under 35 USC § 103(a) over Bothe et al. in view of Peet.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,254,394	BOTHE et al.	10-1993
6,387,529	PEET	05-2002

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bothe et al. (US Pat. 5,254,394) in view of either Peet (US Pat. 6,387,529).

Bothe et al. teaches the basic claimed process of making a multilayer film having a substrate layer and an surface layer, comprising: extruding a base/substrate isotactic polypropylene layer (4:35-5:40); extruding a syndiotactic polypropylene surface layer (example 1); bonding/coextruding the layers (4:35-5:40); biaxially orienting/stretching the film (4:35-5:40); and a surface layer thickness less than the base/substrate thickness (4:35-45).

Bothe et al. teaches a first crystalline thermoplastic polymer, namely isotactic polypropylene having a melting point of about 140°C. It is submitted that the extrusion temperature of this polymer and others is known to be between its melting point and decomposition temperature and would have been optimized by a person of ordinary skill in the art in order to obtain the desired film properties in the final product.

Bothe et al. does not teach a surface layer comprising syndiotactic polypropylene having a melt flow index/rate of less than 2 grams/10 minutes. However, either Peet (2:40-45 and 4:1-20) teaches surface layer comprising syndiotactic polypropylene having a melt flow index/rate of less than 2 grams/10 minutes. Bothe et al. and Peet are combinable because they are from the same field of endeavor, namely, multi-layer films. At the time of invention a person of ordinary skill in the art would have found it obvious to have used a surface layer comprising syndiotactic polypropylene having a melt flow index/rate of less than 2 grams/10 minutes, as taught by Peet, in the process of Bothe et al., and would have been motivated to do so because Peet suggests that syndiotactic polypropylene having a melt flow index/rate of less than 2 grams/10 minutes is suitable for surface layers of multilayer films.

The examiner recognizes that all of the claimed effects and physical properties are not positively stated by the reference(s). However, the reference(s) teaches all of the claimed ingredients, process steps, and process conditions. Therefore, the claimed effects and physical properties would inherently be achieved by carrying out the disclosed process. If it is applicants' position that this would not be the case: (1) evidence would need to be presented to support applicants' position; and (2) it would be the examiner's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties and effects by carrying out only these process steps.

Bothe et al. does not teach extrusion coating an oriented substrate. Nonetheless, Official Notice is given that co-extrusion, extrusion coating, and laminating are well known molding techniques to form multi-layer films. A person of ordinary skill in the art would have found it obvious to have used extrusion coating

and/or laminating, as commonly practice in the art, in the process of Bothe et al., and would have been motivated to do so because such techniques are know equivalent and alternative process steps.

#### **(10) Response to Argument**

Appellant's argument essentially alleges that the Examiner has not established a prima facie case of obviousness because the combination of references would not provide a reasonable expectation of success for substituting a syndiotactic polypropylene resin having a low melt flow index for a syndiotactic polypropylene resin having a high melt flow index as a top layer of a coextruded film. The Examiner disagrees with Appellant's argument and submits that a prima facie case of obviousness was established by the grounds of rejection set forth in the Final Office action and that the combination of references therein adequately provides a reasonable expectation of success.

A brief review of the applied references shows that:

1.) Bothe et al. teaches a multilayer packaging film (abstract) comprising a polypropylene base layer and a least one polypropylene top/surface layer (1:5-10). As mentioned in Appellant's brief (pg. 4), Bothe et al. suggests that polypropylene films have good optical properties (emphasis added). However, Appellant failed to note that Bothe et al. suggests that it is other polymers, such as polyethylene, and not polypropylene when added to the multilayer structure tends to impair optical properties (1:25-40). Furthermore, Bothe et al. is also concerned about various aspects of the film such as heat-sealing properties, scratch resistance, the ability for the surface layer to be treated (1:50-65), and barrier properties (3:19-33), rather than just "gloss" as implied by Appellant's brief.

2.) Peet teaches a multilayer packaging film useful for packaging foods (1:5-15) comprising a polyethylene base/core layer and a least one polypropylene top/surface layer (1:60-65). Peet is concerned about various aspects of the film such as heat-sealing properties, barrier properties, and film strength (1:5-15 and 1:45-60).

As set forth in the art rejection, it is submitted that references are combinable, or analogous art, because they are from the same field of endeavor (as Appellant's endeavor), namely, multilayer films, and therefore can be properly relied upon under 35 USC 103 (see MPEP § 2141.01).

Appellant's argument essentially alleges that there is no reason to modify the gloss (ie. a surface layer property) of Bothe et al. by using the surface layer material of Peet. By doing so, Appellant essentially infers that the only motivation to combine these references must be for the purpose of improving the gloss. However, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the

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references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this instance, the motivation to combine the teaching is simply to form a substantially equivalent film to that taught by the Bothe et al.

The motivation provided in the rejection states: "...would have been motivated to do so because Peet suggests that syndiotactic polypropylene having a melt flow index/rate of less than 2 grams/10 minutes is suitable for surface layers of multilayer films" (emphasis added). As such, the motivation is based upon the substitution of equivalents that are known for substantially the same purpose (ie. surface layer material). It is well established that in order to rely on equivalence as a rationale supporting an obviousness rejection, the equivalency must be recognized in the prior art, and cannot be based on applicant's disclosure or the mere fact that the components at issue are functional or mechanical equivalents (see MPEP § 2144.06). In this instance, equivalency is recognized in the prior art since Peet uses the syndiotactic polypropylene (sPP), having a melt flow index/rate of less than 2 grams/10 minutes, at the same product structural location (ie. a surface layer) as that of of Bothe et al. In other words, the sPP surface layer material of Bothe et al. is substituted by the sPP surface layer material of Peet.

Furthermore, Appellant's argument that a reasonable expectation of success does not exist because the gloss property of a low MFI (melt flow index) polymer is lower than that of a high MFI polymer is not persuasive because the facts do not support Appellant's position. It is noted that Appellant's brief refers to a newly submitted reference (see Cabot attachment to brief) as a teaching that gloss decreases as one moves from a high MFI polymer to a low MFI polymer. However, Appellant's argument fails to provide any suggestion that the specific MFI range taught by Peet would substantially reduce the gloss to an unacceptable level. The only evidence on record (before Appellant's brief) that suggests a particular material would cause a reduction in gloss is Bothe et al. which teaches that the addition of polyethylene (1:25-40) or an ethylene copolymer (see table at 6:30-40) would cause a reduction in gloss ('very good' to 'moderate') but is silent with respect to if the gloss reduction is unacceptable. Lastly, it is noted that Cabot also suggests that other optical properties, such as haze may be adversely affected as the MFI is lowered. However, this optical property does not appear to substantially affect the overall film haze as Bothe et al. uses a polypropylene base layer having a MFI in the range of 0.5 - 8 g/10 min. This suggests that other optical properties may not be as adversely affected either, or at least raises doubt to whether Appellant's position is accurate. Therefore, it is submitted that the optical properties of a lower MFI polypropylene material would not destroy or render the film of Bothe et al. inoperable, rather a reasonable expectation of success exists because the specific sPP material of Peet is known in the art as an equivalent material known for substantially the same purpose.

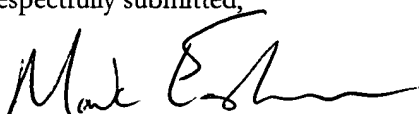
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**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Mark Eashoo, Ph.D.

Primary Examiner, Art Unit 1732

*22-May-06*

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